

CLAIMS

1. A seat comprising:

a seat frame having a frame for a sitting portion and a frame for a back portion;
a planar tension structure attached to the frame for the sitting portion or the frame for the back portion; and

an elastic supporting structure supporting the planar tension structure, between the frame for the sitting portion or the frame for the back portion and the planar tension structure, such that directions of tension are in three dimensions.

2. The seat of claim 1, wherein the tension is formed of a tension which two-dimensionally supports the planar tension structure, and a pseudo normal line direction force which is a force in a direction intersecting the tension.

3. The seat of claim 2, wherein a direction of the pseudo normal line direction force is a direction along a vertical plane including a front-rear direction of the seat.

4. The seat of claim 1, wherein the elastic supporting structure includes a first elastic member which, at a time of sitting, pulls a rear end of the planar tension structure, whose front end is fixed to the frame for the sitting portion, rearward while moving the rear end forward.

5. The seat of claim 1, wherein the elastic supporting structure includes a second elastic member which is provided between the frame for the sitting portion and the planar tension structure, and which, at a time of sitting, pulls downward vicinities of beneath ischial tuberosities of a seated person at the planar tension structure.

6. The seat of claim 5, wherein the second elastic member pulls the planar tension structure such that maximum flexing at the time of sitting arises rearward of a front-rear direction central portion at the time of sitting.

7. The seat of claim 1, wherein the elastic supporting structure includes a third elastic member which is provided between the frame for the sitting portion and the planar tension structure, and which, at a time of sitting, pulls rearward portions at outer sides of a pelvis of a seated person at a rear end of the planar tension structure.

8. The seat of claim 1, wherein the elastic supporting structure is provided between the frame for the sitting portion and the planar tension structure, and, at a time of sitting, urges downward a portion further rearward than a front-rear direction central portion of the planar tension structure, and urges upward a portion further forward than the front-rear direction central portion of the planar tension structure.

9. The seat of claim 1, wherein the planar tension structure is attached to the frame for the back portion, and

the elastic supporting structure pulls forward one end portion of the planar tension structure and pulls rearward another end portion of the planar tension structure, at different positions with respect to a heightwise direction.

10. The seat of claim 9, wherein the planar tension structure is structured so as to make integral a three-dimensional tension structure of a front surface side and a two-dimensional tension structure of a rear surface side, at least at a substantially central portion in a left-right direction, and

the elastic supporting structure pulls forward one end portion of the two-dimensional tension structure, and pulls rearward another end portion of the three-dimensional tension structure.

11. The seat of claim 9, further comprising:

a supporting plate disposed so as to be able to rotate rearward, at a position substantially corresponding to a pelvis of a seated person; and

a tension adjusting mechanism mitigating top-bottom direction tension of the

planar tension structure, in accordance with an amount of movement when the supporting plate is rotated rearward.

12. A seat comprising:

a seat frame having a frame for a sitting portion and a frame for a back portion;

a cushion material including a two-dimensional knit fabric or a three-dimensional solid knit fabric stretched at the frame for the sitting portion or the frame for the back portion; and

a tension adjusting mechanism adjusting tension such that force in a pushing direction arises at a region of the cushion material that a specific region of a human body pushes at a time of sitting.

13. The seat of claim 12, wherein the tension adjusting mechanism includes a connecting member which connects the seat frame and a portion of the cushion material corresponding to the region that the specific region of the human body pushes, and which functions as an elastic member which generates tensile force at the time of sitting.

14. The seat of claim 13, wherein an urging member is provided which urges, in a direction opposite to the pushing direction by the human body at the time of sitting, a region at the cushion material which region is other than a region which is pulled by the connecting member.

15. The seat of claim 14, wherein the urging member includes a compression spring which is disposed beneath the cushion material at the frame for the sitting portion or rearward of the cushion material at the frame for the back portion.

16. The seat of claim 14, wherein the urging member includes an extension spring which connects the frame for the sitting portion or the frame for the back portion and the cushion material.

17. A seat comprising:

a frame for a sitting portion;

a cushion material including a lower layer portion stretched in a front-rear direction at the frame for the sitting portion, and a surface layer portion layered on the lower layer portion and stretched at the frame for the sitting portion; and

a tension adjusting mechanism connecting connection positions at the lower layer portion in vicinities of beneath ischial tuberosities of a seated person and portions at the frame for the sitting portion which portions are lower than the connection positions, and generating tensile force at a time of sitting.

18. A seat comprising:

a frame for a back portion;

a cushion material including a lower layer portion stretched at the frame for the back portion at a portion corresponding to a region between a lower side of shoulder blades and a lumbar vertebrae region of a seated person, and a surface layer portion layered on the lower layer portion and stretched at the frame for the back portion; and

a tension adjusting mechanism connecting at least one connection position at the lower layer portion among a connection position further upward than beneath the shoulder blades and a connection position further downward than the lumbar vertebrae region, and the frame for the back portion, and generating tensile force which pulls the lower layer portion rearward at a time of sitting.

19. A seat comprising:

a seat frame having a fixed frame, and a movable frame provided at a rear portion of the fixed frame so as to be able to move in a front-rear direction;

a cushion material having a cloth spring material whose front end portion is anchored at the fixed frame and whose rear end portion is anchored at the movable frame, and a surface layer portion layered on the cloth spring material and stretched at the fixed

frame;

an urging member provided between the fixed frame and the movable frame, and, at a time of sitting, urging the movable frame rearward and adding tension to the cloth spring material; and

a tension adjusting mechanism connecting connection positions which are at the cloth spring material and are in vicinities of beneath ischial tuberosities of a seated person and are further outward and rearward than beneath the ischial tuberosities, and portions at the fixed frame which portions are further rearward and downward than the connection positions, the tension adjusting mechanism generating tensile force at the time of sitting.

20. The seat of claim 19, wherein a pushing member, which pushes the cloth spring material from a lower side at the time of sitting, is provided further forward than a front-rear direction central portion of the cloth spring material.

21. The seat of claim 20, wherein the pushing member includes a pushing plate which is formed in a rectangular shape of a width of substantially 100 mm and is disposed in a left-right direction of the seat and whose rear end portion is positioned from 250 mm to 350 mm forward of the connection positions, and an elastic member which is provided between the pushing plate and the fixed frame.

22. The seat of any one of claims 17 through 19, wherein, at the surface layer portion, portions between a left-right direction central portion which supports the seated person and left-right direction both end portions, elongate in a left-right direction more easily than the central portion and the both end portions.

23. The seat of claim 22, wherein the portions between the left-right direction central portion and the left-right direction both end portions include elastic members which elongate more easily than the central portion and the both end portions.

24. The seat of claim 23, wherein the elastic members include a three-dimensional solid

knit fabric.

25. The seat of claim 23, wherein left-right direction widths of the elastic members vary continuously along a front-rear direction of the frame for the sitting portion or a top-bottom direction of the frame for the back portion.